

## REMARKS

### I. Introduction

In response to the Office Action dated May 23, 2008, claims 5, 13 and 21 have been canceled, and claims 1-4, 6-12, 14-20 and 22-24 have been amended. Claims 1-4, 6-12, 14-20 and 22-24 remain in the application. Re-examination and re-consideration of the application, as amended, is requested.

### II. Claim Objections

In section (4) of the Office Action, claims 1-24 were objected to due to certain informalities.

Applicant's attorney has amended the claims as indicated above to overcome these objections.

### III. Non-Art Rejections

In sections (5)-(6) of the Office Action, claims 2-4, 6, 10-12, 14, 18-20 and 22 were rejected under 35 U.S.C. §112, second paragraph, as being indefinite.

Applicant's attorney has amended the claims as indicated above to overcome these rejections.

### IV. Statutory Subject Matter Rejection

In sections (7)-(8) of the Office Action, claims 1-8 and 17-24 were rejected under 35 U.S.C. §101 as being directed to non-statutory subject matter.

Applicant's attorney has amended claims 1 and 17 as indicated above to overcome these rejections. However, should issues still remain in this regard, Applicants' attorney requests that the Examiner indicate how the rejection can be overcome, in accordance with the directives of the Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility (Interim Guidelines) II, as well as M.P.E.P. § 2106. Specifically, should it be necessary, the Applicants' attorney requests that the Examiner identify features of the invention that would render the claimed subject matter statutory if recited in the claim. See Interim Guidelines IV.B, as well as M.P.E.P. § 2106.

V. Prior Art Rejections

A. The Office Action Rejections

In sections (9)-(11) of the Office Action, claims 1-24 were rejected under 35 U.S.C. §103(a) as being unpatentable over Sheard et al., U.S. Patent No. 6,208,345 (Sheard), in view of Green et al., U.S. Patent No. 6,854,107 (Green).

Applicants' attorney respectfully traverses these rejections.

B. The Applicants' Independent Claims

Independent claims 1, 9 and 17 are generally directed to developing multi-tier business applications. The computer-implemented system of claim 1 is representative, and comprises a computer; and an Integrated Development Environment (IDE), executed by the computer, for creating and maintaining a multi-tier business application for execution on a multiple tier computer network, wherein the Integrated Development Environment includes a Topological Multi-Tier Business Application Composer that accepts commands from a developer, and in response thereto, graphically creates and maintains the multi-tier business application, the Topological Multi-Tier Business Application Composer includes a window and a palette, the palette contains graphical constructs, representing tiers of the multiple tier computer network and components of each of the tiers, that are used to create and maintain a graphical representation of the multi-tier business application in the window, and when creating the multi-tier business application, accepts commands from the developer, and in response thereto, creates and maintains the tiers, identifies the components of each of the tiers, and defines processing performed by each of the components of each of the tiers, wherein the Integrated Development Environment includes a Meta-model that captures and persistently stores information from the Topological Multi-Tier Business Application Composer, the information including hardware, software and communications attributes used for analyzing an optimal deployment configuration for the multi-tier business application, and wherein the Integrated Development Environment includes an Interactive Agent that monitors the Meta-model for an occurrence of an event that comprises a possible non-optimization of the multi-tier business application, and the occurrence of the event causes the Interactive Agent to display for the developer recommended actions to take in response for the event.

C. The Sheard Reference

Sheard discloses a visual data integration system architecture and methodology. The system architecture includes a transport framework that represents a technology-independent integration mechanism that facilitates the exchange of technology-dependent data between disparate applications. A visual interface facilitates the design, deployment, and runtime monitoring of an integrated information system implementation. An integrated information system is developed visually through use of the visual interface by dragging and dropping components within a canvas area of the interface. The components are graphical representations of various telecommunications hardware and software elements, such as information stores, processors, input/output devices and the like. Various components may be packaged together as business extension modules that provide specific business integration capabilities. Interconnections between components are graphically established using a mouse to define sources and destinations of specified data. An underlying configuration/runtime information framework operating above and in concert with the transport framework effectively transforms the graphical interconnections into logical or physical interconnections, which results in the contemporaneous generation of an integrated runtime system. Format neutral data meta-models are employed to model the input and output data requirements of disparate systems and system components so as to remove any cross-dependencies that exist between the systems and technologies implicated in a data integration project. The visual interface enables runtime control and analysis of the business information and system aspects of an integrated system implementation. Visual views onto the live deployment provide consistent management and control for system integrators, business integrators, system managers, and business managers using a single visual interface.

C. The Green Reference

Green describes a system and method for designing a software architecture for utilizing software components in building extensible N-tier software applications, the method comprising specifying a set of software component rules for creating software components; specifying a set of tier rules for creating tiers; and specifying a set of assembly rules further comprising association rules by which each tier may be associated with at least one software component and linkage rules by which each tier may be linked to at least one other tier. The tier rules may further comprise a set of association rules by which each tier created with the set of tier rules may be associated with at least one software component created using the software component rules; a set of tier framework rules

to provide an architected context for software components within a tier; and a set of package rules to provide for logical grouping of interfaces within a framework defined by the tier framework rules to provide a set of specific behaviors for the tier.

- D. Claims 1-4, 6-12, 14-20 and 22-24 are not rendered obvious under 35 U.S.C. §103(a) by Sheard et al., U.S. Patent No. 6,208,345 (Sheard), in view of Green et al., U.S. Patent No. 6,854,107 (Green).

The Applicants' invention, as recited in the independent and dependent claims, is patentable over the references, because the claims contain limitations not taught by the references. Nonetheless, the Office Action asserts that Sheard and Green together disclose all the elements of Applicants' claims.

Applicants' attorney respectfully disagrees, in view of the amendments made to Applicants' claims, which better distinguish the claims from the Sheard and Green references.

Specifically, neither reference describes the use of a Meta-model that captures and persistently stores information from a Composer application, wherein the information includes hardware, software and communications attributes used for analyzing an optimal deployment configuration for the multi-tier business application, and the use of an Interactive Agent that monitors the Meta-model for an occurrence of an event that comprises a possible non-optimization of the multi-tier business application, wherein the occurrence of the event causes the Interactive Agent to display for the developer recommended actions to take in response for the event.

For example, Sheard describe a visual data integration system for visually linking data exchange components so as to visually define data communications interfaces of an integrated information system. Once fully configured, and with any necessary customization completed, a click of a button activates the runtime deployment of the integrated information system. However, Sheard does not teach or suggest functions for analyzing an optimal deployment configuration or the use of an Interactive Agent that monitors the Meta-model for an occurrence of an event that comprises a possible non-optimization of the multi-tier business application, wherein the occurrence of the event causes the Interactive Agent to display for the developer recommended actions to take in response for the event.

Green is even less relevant than Sheard. Green describe the design of a software component architecture for the development of extensible tier software component applications, but describes no functions for analyzing an optimal deployment configuration or the use of an Interactive Agent

that monitors the Meta-model for an occurrence of an event that comprises a possible non-optimization of the multi-tier business application.

Thus, taken in combination, Sheard and Green do not render obvious Applicants' claimed invention. Moreover, the various elements of Applicants' claimed invention together provide operational advantages over the combination of Sheard and Green. In addition, Applicants' invention solves problems not recognized by the combination of Sheard and Green.

Applicants' attorney submits that independent claims 1, 9 and 17 are allowable over the references. Further, dependent claims 2-4, 6-8, 10-12, 14-16, 18-20 and 22-24 are submitted to be allowable over the references in the same manner, because they are dependent on independent claims 1, 9 and 17, respectively, and thus contain all the limitations of the independent claims. In addition, dependent claims 2-4, 6-8, 10-12, 14-16, 18-20 and 22-24 recite additional novel elements not shown by the references.

#### VI. Conclusion

In view of the above, it is submitted that this application is now in good order for allowance and such allowance is respectfully solicited. Should the Examiner believe minor matters still remain that can be resolved in a telephone interview, the Examiner is urged to call Applicant's undersigned attorney.

It is believed that no fees are due at this time. Nonetheless, should any charges be deemed necessary, please charge any such fees, or credit any overpayments, to Deposit Account No. 50-0494 of Gates & Cooper LLP.

Respectfully submitted,

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